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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,879	03/30/2004	Bin Wei	129545-1	2878

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER

POPOVICS, ROBERT J

ART UNIT	PAPER NUMBER
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1724

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/708,879

Applicant(s)

WEI ET AL.

Examiner

Robert J. Popovics

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-13 and 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

Claims 1,3,5,7,8,10,13,15,19,20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (US 5,221,467). See Figures 4(a), 7(a), 8(a) and 15(a) each of which illustrates two stage filtration in an EDM:

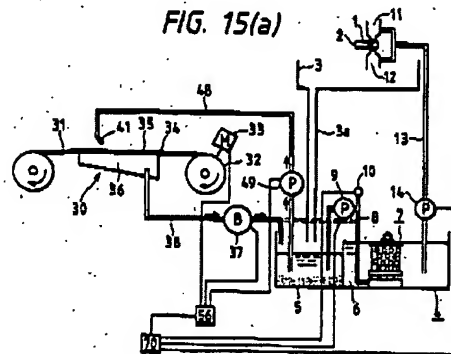
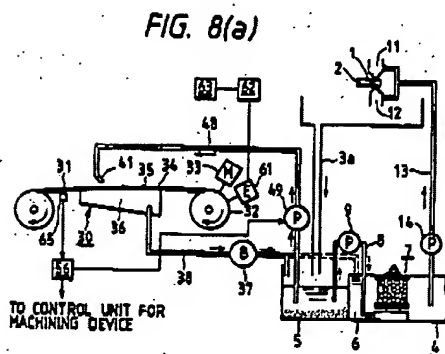
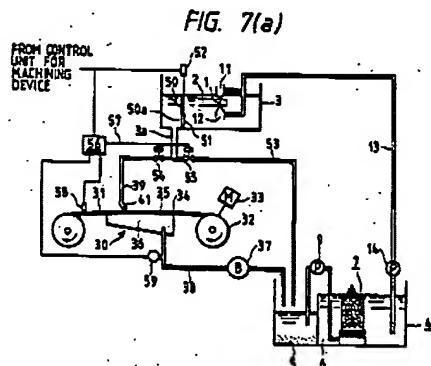
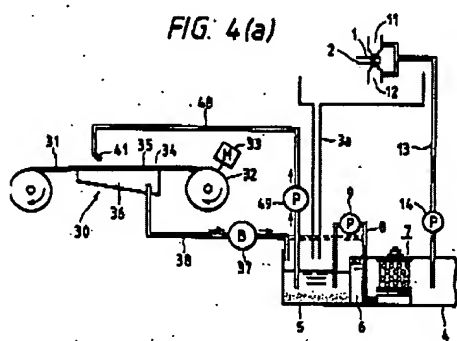
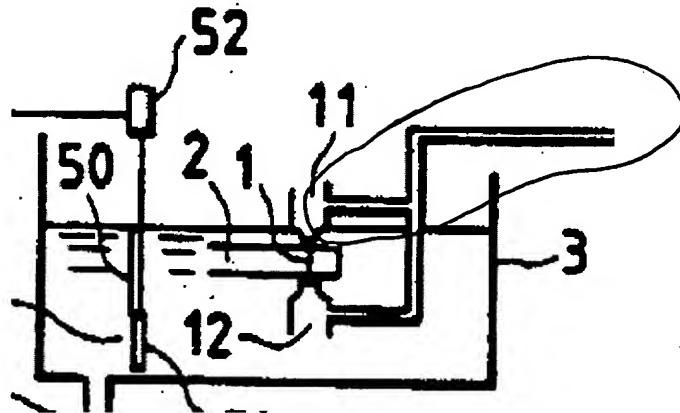
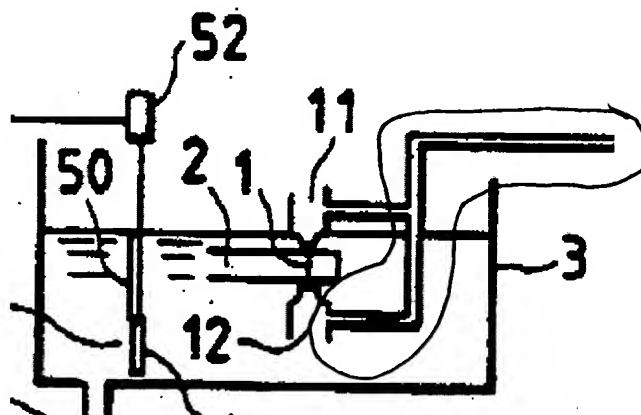


FIG. 7(a)



"First Path"

FIG. 7(a)



"Second Path"

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Claims **5,11,12 ,17,23** and **24** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Suzuki (US 5,221,467)**. It is noted that the use of "guides" as recited in claims **5,11,12 ,17,23** and **24**, is well known in the art. It is submitted that the use of a guide in the system of Suzuki would be inherent. Alternatively, it is submitted that the use of a guide in the system of Suzuki would have been obvious by virtue of the well known status of guides.

Claim Rejections - 35 USC § 103

Claims **5,11,12 ,17,23** and **24** are ***alternatively*** rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of **Suzuki (US 5,221,467)** and **Hosaka (US 6,533,927)**. Hosaka discloses guide 13. The use of a guide in the system of Suzuki would have been obvious in view of the teachings of Hosaka.

Claims **4,6,9,16,18** and **21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki (US 5,221,467)**. The additional subject matter of claims **4,6,9,16** and **18** merely recites features which are conventional, or would have been readily apparent to those skilled in the art. It is noted that the use of sloped tank bottoms to direct accumulated debris is notoriously well known in the art. It is known that the use of control systems employing pressure sensors at various points in a system is notoriously well known in the art. The use of additional pumps and flowpath configurations would have been readily apparent to those skilled in the art for various reasons, including, but not limited to, reducing the size of the pump and/or piping, avoiding points of stagnation in either tanks, using materials on hand (as opposed to buying), redundancy, to permit cycling and/or maintenance of the pumps/lines, etc.

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Accordingly, claims **4,6,9,16,18** and **21** are not seen to patentably distinguish over **Suzuki (US 5,221,467)**.

Response to Arguments

Applicant's arguments filed **December 29, 2006** have been fully considered but they are not persuasive.

Applicants argue:

As to each of the outstanding § 102 and § 103 rejections of the remaining claims based on the Suzuki reference, the Applicants respectfully traverse the same for the reason that Suzuki fails to teach or suggest the use of a second fluid return path to the work tank, as presently claimed. Moreover, Suzuki further fails to teach or suggest that the second fluid return path introduces finely-filtered machining fluid through a adding inlet disposed at a lower portion of the work tank, as is also claimed.

The Examiner respectfully disagrees with Applicants' assertions. Two paths are disclosed by Suzuki which return fluid to the work tank. Each of the two paths share a common portion. The language of the claims does not preclude the two paths from having a portion in common. The term "***path***" has been given its ordinary meaning. See the definitions cited at Dictionary.com (attached).

Applicants additionally argue:

Notwithstanding the above, the claims further recite that while the first fluid return path introduces the filtered fluid through an electrode, the second fluid return path introduces the filtered fluid through a liquid adding inlet disposed at a lower portion of the work tank. This is yet another element that is totally missing from Suzuki.

The structure disclosed by Suzuki is seen to constitute a "***liquid adding inlet***," since, that is what it does.

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It is noted that Applicants have not challenged the Examiner's assertions regarding the well known or conventional status of "guides," and "The additional subject matter of claims 4,6,9,16 and 18 merely recites features which are conventional, or would have been readily apparent to those skilled in the art. It is noted that the use of sloped tank bottoms to direct accumulated debris is notoriously well known in the art. It is known that the use of control systems employing pressure sensors at various points in a system is notoriously well known in the art. The use of additional pumps and flowpath configurations would have been readily apparent to those skilled in the art for various reasons, including, but not limited to, reducing the size of the pump and/or piping, avoiding points of stagnation in either tanks, using materials on hand (as opposed to buying), redundancy, to permit cycling and/or maintenance of the pumps/lines, etc." Applicants silence constitutes acquiescence of the Examiner's position, and is acknowledged.

Conclusion

Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to Robert J. Popovics at telephone number (571) 272-1164.



**Robert James Popovics
Primary Examiner
Art Unit 1724**

